Remarks/Arguments

The foregoing amendments in the specification and claims are of formal nature, and do not add new matter. Support for present claim amendments can be found on page 13, line 23 onwards to page 14, line 14 and also on page 72, line 8-10 for peptides that inhibit the binding of IGF-1 to IGFBP-1; and on page 18 line 8-17 and page 68, line 19 to page 69, line 15 for entirely helical constrained peptides.

Prior to the present amendment, claims 27-30, 52-57 were pending in this application. The Examiner withdrew claims 54 and 57 from examination as drawn to an independent or distinct invention from the originally claimed invention. Applicants hereby cancel claims 54 and 57 without prejudice or disclaimer specifically reserving the right to pursue cancelled claims in subsequent continuing applications. Claims 27-30, 52-53 and 55-56 stand rejected on various grounds.

The rejection to the remaining claims is respectfully traversed.

Claim Rejections- 35 U.S.C.§112, first paragraph

Claims 27-30, 52, 53, 55-56 were rejected under 35 U.S.C. §112, first paragraph, for lack of enablement. The Examiner alleges that "there are no functional limitations to the genus of claimed variant polypeptides. There is a lack of predictability in the art. Predicting structure, hence function, from primary amino acid sequence data is extremely complex...." The Examiner cites two references to support this assertion and adds that the skilled artisan would be required to conduct undue experimentation to make polypeptides meeting the claimed structural limits. Applicants respectfully traverse this rejection.

The functional recitation "wherein, said peptide inhibits the binding of IGF-1 to IGFBP-1," and the structural recitation "wherein, said peptide is entirely helical throughout the constrained portion" should overcome these rejections. Ample support for these recitations are found throughout the specification; for example, at page 13, line 23 onwards to page 14, line 14 and also on page 72, line 8-10 for peptides that inhibit the binding of IGF-1 to IGFBP-1; and on page 18 line 8-17 and page 68, line 19 to page 69, line 15 for entirely helical constrained peptides. The presently amended claims are drawn to a genus of polypeptides defined both by sequence and functional identity. One of skill in the art knew how to make and use the claimed

polypeptides without undue experimentation at the time of filing of the present application, based upon the Applicants' disclosure and the knowledge in the art.

Hence, the Examiner is respectfully requested to reconsider and withdraw the present rejection.

Claim Rejections- 35 U.S.C.§102(b)

Claim 27 was rejected under 35 U.S.C.§102(b) as being anticipated by Artamangkul (1997). The Examiner alleges that the cited art anticipates the claimed invention since Artamangkul's cyclic analogues are constrained helical peptides comprising a sequence of nine amino acid residues. Applicants respectfully traverse.

Artamangkul teaches Dyn A-(1-13) cyclic analogues and the binding of these analogues to κ, μ, and δ opioid receptors. It also discloses that peptides with helical conformations are required for binding to the κ receptor. Artamangkul does not disclose peptides that inhibit the binding of IGF-1 to IGFBP-1 nor does it disclose peptides that are entirely helical throughout the constrained portion.

Currently claimed peptides inhibit the binding of IGF-1 to IGFBP-1 and are entirely helical throughout the constrained portion of the peptide. Support for these recitations can be found on page 13, line 23 onwards to page 14, line 14 and also on page 72, line 8-10 for peptides that inhibit the binding of IGF-1 to IGFBP-1; and on page 18 line 8-17 and page 68, line 19 to page 69, line 15 for entirely helical constrained peptides.

As the Examiner is aware, an anticipatory reference must teach all the claim limitations.

Artamangkul teaches Dyn A-(1-13) cyclic analogues containing a disulfide linkage between positions 5 and 13 that flank 7 amino acids, to form a constrained peptide. Further, Artamangkul also teaches a helical conformation for Dyn A-(1-13) that extends from Tyr^1 through Arg^9. However, the constrained portion of Artamangkul's peptide (position 5 to 13) is not entirely helical and additionally, it teaches a completely different biological function for the constrained peptide from the presently claimed peptides. Thus, Artamangkul does not teach all the claim limitations and does not anticipate the presently claimed invention.

Thus, the rejection under 35 U.S.C.§102(b) should be withdrawn.

The present application is believed to be in *prima facie* condition for allowance, and an early action to that effect is respectfully solicited.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 08-1641 (Attorney Docket No.: 39766-0127P2D1). Please direct any calls in connection with this application to the undersigned at the number provided below.

Respectfully submitted,

Date: June 27, 2003

Ginger R. Dreger
Reg. No. 33,055

HELLER EHRMAN WHITE & McAULIFFE LLP
Customer No. 35489
275 Middlefield Road
Menlo Park, California 94025
Telephone: (650) 324-7000
Facsimile: (650) 324-0638

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